Incentivising climate action for a sustainable and competitive agri-food value chain

Study for the European Commission - DG CLIMA

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In cooperation with
- IEEP
- Umweltbundesamt
- Ecologic
- Carbon Counts

Results of the Initial Study

Pricing agricultural GHG emissions along the value chain via emissions trading

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Part 1: Pricing agricultural GHG emissions along the value chain via emissions trading

Policy design options and considerations for an agri-food ETS

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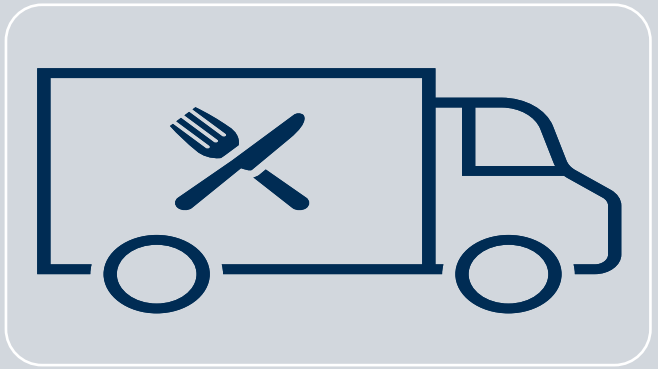
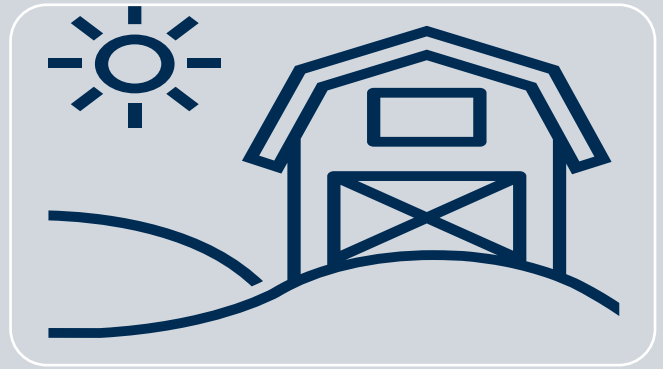
5 agri-food ETS policy options explored





Downstream ETS

- **Point of obligation:** meat and dairy processors
- 245 $MtCO_2e$

Upstream ETS

- **Point of obligation:** fertiliser and feed producers and importers
- 305 $MtCO_2e$

On-Farm ETS (3)

- **Point of obligation:** farm operators
- Three ETS options
  - All GHG = 426 $MtCO_2e$
  - Livestock = 245 $MtCO_2e$
  - Peatlands = ~95 $MtCO_2e$

Certified on-farm voluntary credits

- Provide farms in the downstream/upstream ETS options an opportunity to receive financial support in transitioning towards mitigation practices
- Farms could calculate and certify their emissions in a detailed and accurate way on a voluntary-basis
  - Given tradeable credits generated through the certified MRV approach
  - Quantity of credits generated can reflect the difference between their certified emissions, and what their calculated emissions would have been on the standard proxy calculation.
  - Regulated entities could present these certificates to help meet their obligation to retire allowances covering the total of their emissions

Conclusions

- An Agri-food ETS can provide incentives for farmers to change their practices:
  - Impact of on-farm Agri-food ETS options mainly depends on the emissions covered and cost-effective on-farm mitigation measures available
  - Impact of the upstream and downstream AgETS depends on the extent to which incentives are passed on to farms
- Upstream and downstream Agri-food ETSs can further facilitate new vertical arrangements in agri-food value chain and incentivise innovation:
  - Upstream, innovation for more efficient and lower emitting fertilisers could be facilitated
  - Downstream, food processors could change food recipes to lower emissive ingredients or innovate to develop new products such as alternative protein technologies
  - The Certified MRV method could further create collaborative **approaches and generate additional income for farmers should they choose to adopt mitigation actions on-farm**

Part 2: Linking carbon removals in the land sector to an agricultural ETS

Policy models for an Agri-food ETS+Removals and associated challenges

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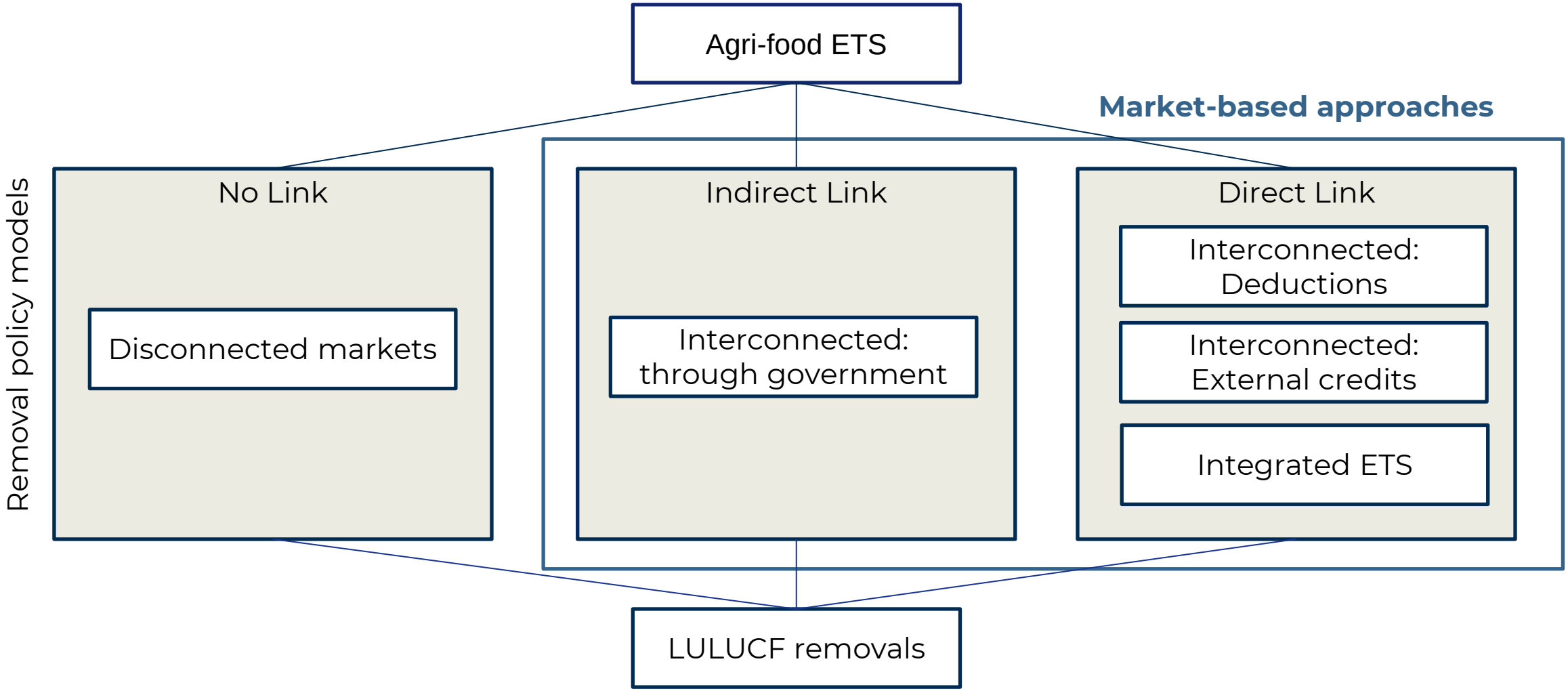
5 removal policy model options



Conclusions

- LULUCF carbon removals will be essential to attain the EU's climate objectives – but cannot replace rapid emissions reductions in all sectors
- The nature of LULUCF removals poses challenges to their incorporation into an Agri-food ETS, especially related to non-equivalence of LULUCF removals and Agri-food ETS emissions reductions and emissions reduction deterrence
  - Policy design, including the CRCF, may be able to address some of these challenges
- The different removal policy models explored in this study pose different strengths and weaknesses, and there is not a single best solution
  - Different removals types could and should be governed by different policy models
  - Sequencing of policy models over time should also be considered
- Agri-food ETS+Removal policy design should be considered as part of a wider systemic change to best transition the agriculture and land sector and our food system to sustainability
- Many open questions – but no time to lose

Stakeholder preferences

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Stakeholder preferences on the combinations of Agri-food ETS options and removal policy models:

- Strong stakeholder preference for a downstream Agri-food ETS in combination with the No link: Disconnected market policy model or the Direct link: Deductions
- General opposition to an on-farm ETS in almost all combinations

Policy models for linking LULUCF carbon removals	Agri-ETS options		
	On-farm ETS	Upstream ETS	Downstream ETS
No link: Disconnected market	**+/-**	**+/-**	**++**
Indirect link: Interconnected through government	**--**	**-**	**+**
Direct link: Deductions	**--**	**+/-**	**++**
Direct link: External credits	**--**	**-**	**+**
Direct link: Integrated ETS	**-**	**+/-**	**+**

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Follow-up study

Incentivising climate action for a sustainable and competitive agri-food value chain

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Purpose of the new study

Two policy goals

Accelerate GHG emission reductions in the agriculture sector

Create an enabling environment for the sector to fulfil this role, considering new business and income opportunities

Aim of the study

Contribute to a **better understanding** of policy options for sustainable climate action across the agri-food value chain and the impacts on competitiveness, farmer income and consumer prices.

Purpose of the new study

The project team will assess viable policy options more concretely over the forthcoming year

Engagement and Transparency

Active input from stakeholders

In-depth assessment

legal and practical feasibility

economic, social, administrative, and environmental impact

Study Timeline

Policy Options

Shaping the policy options for in-depth assessment

- Point of obligation, scope of emissions, thresholds, payments for removals, regulatory flexibilities – including alternatives to what was in original study
- How can options be aligned with existing policies in the fields of climate, environment and agriculture
- Administrative impacts – transaction costs and MRV costs, compliance costs

Effectiveness

Design options for agri-food climate solutions to be effective in achieving sustainable GHG reductions and increasing carbon removals

- Potential for emission reductions and removals
- Incentives for innovation and changing practices both on and off-farm
- Implications for land use change
- Consumer behaviour and dietary choices
- Carbon leakage and impacts on emissions in third countries
- Other environmental risks and benefits

Competitiveness

Economic implications of policy options for farmers and other agri-food value chain actors - costs and benefits

- How costs will vary across the value chain depending on the point of obligation – transaction costs, compliance costs, MRV costs
- Market power distribution/re-distribution
- Global competitiveness – imports, exports (export substitution)

Cohesion

Implications for the social fabric of the EU and well-being of EU inhabitants

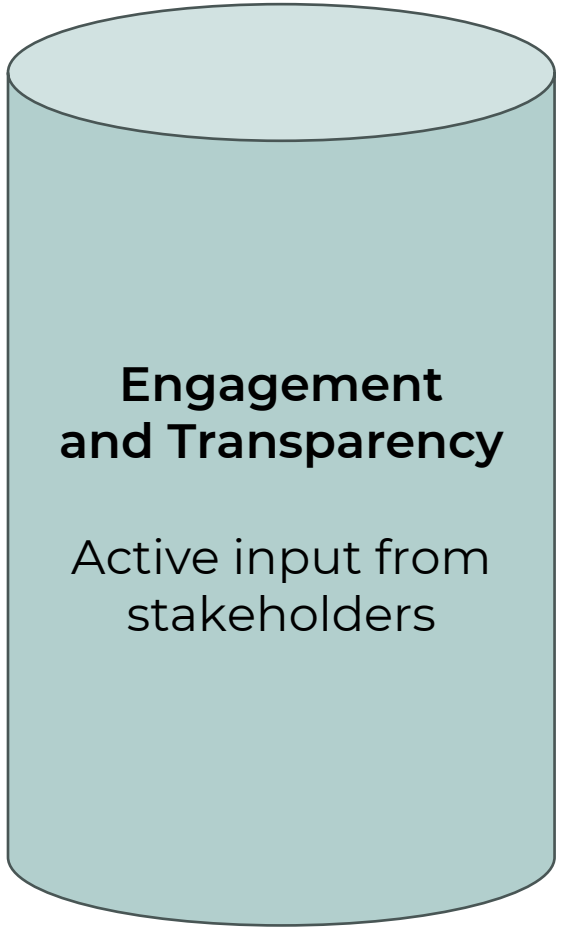
- Implications of rising food prices and vulnerable households
- Dietary choices and health/well-being
- Impacts on small- and medium-sized farms
- Risks of land abandonment and age structure of farms
- Rural areas – employment, population, opportunities for revitalization
- Member States – CEE countries, countries with many farms, small-scale farming

Enabling

Enabling factors or levers that will facilitate a positive trajectory for agri-food climate solutions

- A vision with objectives for effective agri-food climate solutions – how to achieve positive outcomes and limit negative impacts
- Maximise access to fresh funding for climate solutions through for example reward models

Engagement



1. This stakeholder event
2. Technical Workshops from September 2024 – April 2025
3. Any input you might find useful

Workshops – tentative dates

Workshops – get engaged

- Interested participants may register via the link provided in the background paper until 19 July 2024

  EUSurvey - Survey (europa.eu)

- Workshops will be limited to 35 persons in the interest of lively and informative discussions

- Selection will be undertaken in light of expertise and in view of achieving a balanced participation of all stakeholders concerned

Participation comes with a commitment to contribute actively either in the discussions or through providing input and material in writing

Input request

We want to hear your views and benefit from your knowledge and experience.

Input welcome at any time until April 2025 to

agri-food-climate@trinomics.eu

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Thank you for your attention!

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